

IN THE CLAIMS:

Please cancel claims 4 and 21 without prejudice or disclaimer, and amend claims 1-3, 5-20, and 22-52 as follows: _____

1. (Currently Amended) A centrifugal separator comprising:
a centrifugal rotor ~~rotors~~(10-1, 10-2, 80-1, 80-2) with a symmetric rotation [[axes]]axis, having a single sample separation chamber disposed therein ~~chambers~~ (2, 15, 70), for centrifuging a sample[[s]] contained in a sample solution[[s]] placed in the sample separation chamber, and an upper opening[[s]] communicating with (3) ~~passing through to~~ said sample separation chambers ~~in the~~ at an upper part[[s]] of the centrifugal rotor, said rotation axis included inside said separation chamber;
a ~~members of frameworks capable of being coupled to~~ selectively engaged with said upper openings (100); and
rotation-driving means [[(20)]] for rotating said centrifugal rotor[[s]], ~~assuming that the direction of said symmetric rotation axis is the first direction, by rotating by means of~~ said ~~members of frameworks~~ around [[a]] said rotation axis in a [[said]] first direction,
wherein ~~provided that two directions intersecting each of a second direction and a third direction intersects with said first direction at a right angle are the second direction and the third direction, respectively, the length a dimension~~ of said sample separation chamber in said third direction is larger than ~~the length a dimension~~ of said sample separation chamber in said second direction.
2. (Currently Amended) A centrifugal separator according to claim 1, wherein said ~~members of frameworks are~~ is engaged with said upper opening[[s]] to seal said upper opening[[s]] with said member[[s]].
3. (Currently Amended) A centrifugal separator according to claim 1, wherein said sample solution[[s are]] is injected into said sample separation chamber[[s from]] via said upper opening[[s]].
4. (Cancelled)
5. (Currently Amended) A centrifugal separator according to claim 1, wherein a portion[[s,]]

to which the largest centrifugal acceleration generated by rotation of said centrifugal rotor[[s]] is applied[[,]] has the smallest cross sectional area[[s]].

6. (Currently Amended) A centrifugal separator according to claim 1, wherein a lower part[[s]] of said centrifugal rotor[[s have]] has a lower openings ~~(16) passing through to communicating with~~ said sample separation chamber[[s]].
7. (Currently Amended) A centrifugal separator according to claim 6, wherein the centrifugal rotors ~~consist of~~ includes the upper part members of frameworks ~~(110-1)~~ and the lower part members of frameworks ~~(120-1)~~, and the upper members and the lower parts members of frameworks are fitted to each other ~~one another~~.
8. (Currently Amended) A centrifugal separator comprising:
 - a centrifugal rotor ~~rotors(10-1, 10-2, 80-1, 80-2)~~ with a symmetric rotation [[axes]]axis, having a single sample separation chamber disposed therein ~~chambers (2, 15, 70)~~, for centrifuging a sample[[s]] contained in a sample solution[[s]] placed in the sample separation chamber, and an upper opening[[s]] communicating with ~~(3) passing through to~~ said sample separation chambers ~~in that~~ an upper part[[s]] of the centrifugal rotor, said rotation axis included inside said separation chamber;
 - a members of frameworks capable of being coupled to selectively engaged with said upper openings ~~(100)~~; and
 - rotation-driving means [[(20)]] for rotating said centrifugal rotor[[s]] around an axis Z as said symmetric rotation axis, ~~assuming that said symmetric rotation axis is Z~~, by rotating said [[members of frameworks]]member around said axis Z,
 - wherein ~~provided that~~ a direction normal to said axis Z and along which, ~~in which the distance between the ends of said sample chamber~~ [[is]] has the largest dimension thereof ~~in the direction normal to said axis Z is the largest is~~ defines an axis Y, and a direction intersecting with said axis Z and axis Y axis at right angles defines an [[is]] axis X, with respect to a cross sectional [[areas]]area of said sample separation chamber ~~in a plane parallel to~~ on a ZX plane is bigger than a parallel [[, said]] cross sectional area of said sample separation chamber [[far]] away from said ZX plane ~~axis Z is smaller than said cross sectional area at a distance near axis Z~~.

9. (Currently Amended) A centrifugal separator according to claim 8, wherein said members ~~of frameworks are~~ is engaged with said upper opening[[s]] to seal said upper opening[[s]] with said member[[s]].
10. (Currently Amended) A centrifugal separator according to claim 8, wherein said sample solution[[s are]] is injected into said sample separation chamber[[s from]] via said upper opening[[s]].
11. (Currently Amended) A centrifugal separator according to claim 8, wherein said sample separation chamber[[s have]] has a concave portions ~~with two symmetric planes intersecting with one another, including that includes~~ said axis Z.
12. (Currently Amended) A centrifugal separator according to claim 8, wherein a portion[[s,]] to which the largest centrifugal acceleration generated by rotation of said centrifugal rotor[[s]] is applied[[,]] has the smallest cross sectional area[[s]].
13. (Currently Amended) A centrifugal separator according to claim 8, wherein a lower part[[s]] of said centrifugal rotor[[s have]] has a lower openings ~~(16) passing through to communicating with~~ said sample separation chamber[[s]].
14. (Currently Amended) A centrifugal separator according to claim 13, wherein the centrifugal rotors ~~consist of the~~ includes the upper part ~~members of frameworks (110-1)~~ and the lower part ~~members of frameworks (110-1, 110-2, 110-3), and the upper members and the lower parts members of frameworks~~ are fitted to each other ~~one another~~.
15. (Currently Amended) A centrifugal separator comprising:
a centrifugal rotors ~~(10-1, 10-2), with a~~ symmetric rotation [[axes]] axis, having a single sample separation chambers ~~(15, 70) in them, disposed therein~~ for centrifuging a sample[[s]] contained in a sample solution[[s]], ~~[[the]] an~~ upper openings ~~(3) passing through to communicating with~~ said sample separation chambers ~~in the~~ at an upper part[[s]] of the centrifugal rotor and ~~[[the]] a~~ lower openings ~~passing through to communicating with~~ said

sample separation chamber[[s]], said symmetric rotation axis of said rotor included inside said separation chamber;

~~rotation driving means-[[(20)]]~~ for rotating the centrifugal rotors, ~~assuming that said symmetric rotation axes are rotation axes,~~ by rotating said ~~members of frameworks upper part~~ around said rotation ~~[[axes,]]axis;~~ and

a solution holding vessels (12, 150), fixed in said sample separation chamber[[s,]] and having a concave portions (13, 160) for holding said sample solution[[s]] injected into said sample separation chamber via [[from]] the upper opening[[s]].

16. (Currently Amended) A centrifugal separator according to claim 15, wherein said centrifugal rotors ~~consist of~~ includes said upper ~~part members of frameworks (110-2)~~ and a lower ~~part members of frameworks and said upper members and said lower members are~~ which is fitted to said upper part one another.

17. (Currently Amended) A centrifugal separator comprising:

a centrifugal rotors (10-1, 10-2), with a symmetric rotation ~~[[axes]]~~ axis, having a single sample separation chambers (15, 70) ~~in them,~~ disposed therein for centrifuging a sample[[s]] contained in a sample solution[[s]], ~~[[the]]an upper openings (3) passing through to communicating with~~ said sample separation chambers ~~in that an upper part[[s]] of the centrifugal rotor~~ and ~~[[the]]a lower openings (16) passing through to communicating with~~ said sample separation chamber[[s]], said symmetric rotation axis of said rotor included inside said separation chamber,

rotation driving means (20), ~~assuming that said symmetric rotation axis is axis Z,~~ for rotating the centrifugal rotor[[s]] around ~~[[said]]~~ an axis Z, and

a solution holding vessels (12, 150), fixed in said sample separation chamber[[s,]] and having a concave portions (13, 160) for holding said sample solution[[s]] injected into said sample separation chamber via [[from]] the upper opening[[s]],

wherein ~~provided that~~ a direction normal to said axis Z and along which, ~~in which the distance between the ends of said sample chamber [[is]]~~ has the largest dimension thereof defines an axis Y in the direction normal to said axis Z, and a [[the]] direction intersecting with said axis Z and axis Y at right angles defines an axis X, [[said]]and a longitudinal direction corresponds to of the solution vessel coincides with said axis Y.

18. (Currently Amended) A centrifugal separator according to claim 17, wherein said centrifugal rotors ~~consist of~~ includes said upper ~~part members of frameworks (110-2)~~ and a lower ~~part members of frameworks and said upper members and said lower members are~~ which is fitted to said upper part ~~one another~~.
19. (Currently Amended) A centrifugal separator comprising:
a centrifugal rotors ~~(10-1, 10-2)~~, with a symmetric rotation ~~[[axes]]~~ axis, having a single sample separation chambers ~~(15, 70) in them~~, disposed therein for centrifuging a sample~~[[s]]~~ contained in a sample solution~~[[s]]~~, ~~[[the]]~~ an upper openings ~~(3) passing through to communicating with~~ said sample separation chambers ~~in the~~ at an upper part~~[[s]]~~ of the centrifugal rotor and ~~[[the]]~~ a lower openings ~~(16) passing through to communicating with~~ said sample separation chamber~~[[s]]~~, said symmetric rotation axis of said rotor included inside said separation chamber;
a ~~members of frameworks capable of being coupled to~~ selectively engaged with said upper openings ~~(100)~~;
rotation-driving means ~~[[(20)]]~~ for rotating said centrifugal rotor~~[[s]]~~, ~~assuming that the direction of said symmetric rotation axis is the first direction, by rotating by means of said members of frameworks around~~ [[a]] said rotation axis in a ~~[[said]]~~ first direction~~[[,]]~~; and
a solution holding vessels ~~(12, 150)~~, fixed in said sample separation chamber~~[[s]]~~ and having a concave portions ~~(13, 160)~~ for holding said sample solution~~[[s]]~~ injected into said sample separation chamber via ~~[[from]]~~ said upper opening, both of the upper and lower openings communicating with said sample separation chamber,
wherein ~~provided that two directions intersecting each of a second direction and a third direction intersects~~ with said first direction at a right angle ~~are the second direction and the third direction, respectively, the length a dimension~~ of said sample separation chamber in said third direction is larger than ~~the length a dimension~~ of said sample separation chamber in said second direction.
20. (Currently Amended) A centrifugal separator according to claim 19, wherein said members

of frameworks and said upper opening[[s]] are engaged with each other ~~one another~~ to seal said upper openings ~~by said members of frameworks~~ with said member.

21. (Cancelled)
22. (Currently Amended) A centrifugal separator according to claim 19, wherein ~~the portions,~~ a portion to which the largest centrifugal acceleration generated by rotation of said centrifugal rotor[[s]] is applied[[,]] has the smallest cross sectional area[[s]].
23. (Currently Amended) A centrifugal separator according to claim 19, ~~[[wherein]]~~ further comprising means ~~(17, 18, 130, 131)~~ for rotatably supports supporting said centrifugal rotors ~~from lower side on a supporting stand~~.
24. (Currently Amended) A centrifugal separator according to claim 19, wherein said centrifugal rotors ~~consist of~~ includes the upper part ~~members of frameworks (110-2)~~ and ~~[[the]]~~ a lower ~~part members of frameworks (120-2)~~, which is are fitted to the upper part ~~one another~~.
25. (Currently Amended) A centrifugal separator comprising:
a centrifugal rotor ~~rotors(10-1, 10-2, 80-1, 80-2)~~ with a symmetric rotation ~~[[axes]]~~ axis, having a single sample separation chamber disposed therein ~~chambers (2, 15, 70)~~, for centrifuging a sample[[s]] contained in a sample solution[[s]] placed in the sample separation chamber, and an upper opening[[s]] communicating with ~~(3) passing through to~~ said sample separation chambers ~~in that~~ an upper part[[s]] of the centrifugal rotor, said rotation axis included inside said separation chamber;
~~a members of frameworks capable of being coupled to~~ selectively engaged with said upper openings ~~(100);~~;
rotation-driving means ~~[[(20)]]~~ for rotating said centrifugal rotor[[s]] around an axis Z as said symmetric rotation axis, ~~assuming that said symmetric rotation axis is Z~~, by rotating said ~~[[members of frameworks]]~~ member around said axis Z[[,]]; and
a solution holding vessels (12, 150), fixed in said sample separation chamber[[s,]] and having a concave portions (13, 160) for holding said sample solution[[s]] injected into

said sample separation chamber via [[from]] said upper opening, both of the upper and lower openings communicating with said sample separation chamber,

~~wherein provided that a direction normal to said axis Z and along which, in which the distance between the ends of said sample chamber [[is]] has the largest dimension thereof in the direction normal to said axis Z is the largest is defines an axis Y, and a direction intersecting with said axis Z and axis Y axis at right angles defines an [[is]] axis X, with respect to a cross sectional [[areas]] area of said sample separation chamber in a plane parallel to on a ZX plane is bigger than a parallel [[, said]] cross sectional area of said sample separation chamber [[far]] away from said ZX plane axis Z is smaller than said cross sectional area at a distance near axis Z.~~

26. (Currently Amended) A centrifugal separator according to claim 25, wherein said members ~~of frameworks~~ and said upper opening[[s]] are engaged with each other ~~one another~~ to seal said upper openings ~~by said members of frameworks~~ with said member.
27. (Currently Amended) A centrifugal separator according to claim 25, wherein said sample separation chambers ~~have the~~ has a concave portion[[s]] fixed therein ~~with two symmetric planes and including the rotation symmetric axis therein.~~
28. (Currently Amended) A centrifugal separator according to claim 25, wherein ~~the portions,~~ a portion to which the largest centrifugal acceleration generated by rotation of said centrifugal rotor[[s]] is applied[[,]] has the smallest cross sectional area[[s]].
29. (Currently Amended) A centrifugal separator according to claim 25, further comprising for rotatably ~~supports~~ supporting said centrifugal rotors ~~from lower side~~ on a supporting stand.
30. (Currently Amended) A centrifugal separator according to claim 25, wherein said centrifugal rotors ~~consist of~~ includes the upper part ~~members of frameworks (110-2) and [[the]] a lower part members of frameworks (120-2), which is~~ are fitted to the upper part ~~one another~~.
31. (Currently Amended) A sample preparation device comprising:

a plurality of centrifugal rotors (210, 501) for centrifuging a sample contained in a sample solution, [[with]]each having a respective symmetric rotation [[axes]]axis, a single sample separation chambers(2, 15, 70) in them for centrifuging samples contained in sample solutions disposed therein, and an upper openings (3) communicated communicating with said sample separation chamber[[s]], said respective rotation symmetric axis being included inside said sample separation chamber;

multiplea plurality of rotation driving means (211, 502) assuming that said symmetric rotation axes are rotation axes each for rotating a respective one of said centrifugal rotors around said respective symmetric rotation axis;[[,]] and

[[a]]control means for independently driving said rotation driving means of said respective rotor, independently.

32. (Currently Amended) A sample preparation device according to claim 31, wherein said control means control both injection of said sample solution[[s]] into said sample separation chamber[[s]] of each of said centrifugal rotors, and recovery of said sample[[s]] from each of said sample separation chamber[[s]] of each of said centrifugal rotors ~~for each of said centrifugal rotors.~~
33. (Currently Amended) A centrifugal preparation device according to claim 31, wherein each of said centrifugal rotors [[are]]is disposed [[at]]on a transport devices ~~(40, 201)~~ moving [[on]]along a loop trajectory [[trajectories]].
34. (Currently Amended) A sample preparation device according to claim 31, wherein each of said centrifugal rotors [[are]]is disposed [[at]]on a transport devices ~~(40, 201)~~ moving [[on]]along a loop trajectory ~~trajectories and at given intervals, where said transport devices move, and each of~~ said centrifugal rotors [[are]]is rotated for [[centrifuging]]a given time interval to carry out centrifugal separation of said sample solution[[s]] contained therein.
35. (Currently Amended) A sample preparation device according to claim 31, each of said centrifugal rotors [[are]]is disposed [[at]]on a transport devices ~~(40, 201)~~ moving [[on]]along a circular trajectory [[trajectories]].

36. (Currently Amended) A sample preparation device according to claim 31, wherein each of said centrifugal rotors ~~[[are]]is~~ disposed ~~[[at]]on a~~ transport devices ~~(40, 201)~~ moving ~~[[on]]along a circular trajectory trajectories and at given intervals, where said transport devices move, and each of~~ said centrifugal rotors ~~[[are]]is~~ rotated for ~~[[centrifuging]]a given time interval to carry out centrifugal separation of~~ said sample solution~~[[s]] contained therein.~~
37. (Currently Amended) A sample preparation device comprising:
a plurality of centrifugal rotors (210, 501) for centrifuging a sample contained in a sample solution, [[with]]each having a respective symmetric rotation [[axes]]axis, a single sample separation chambers(15, 70) in them for centrifuging samples contained in sample solutions disposed therein, and an upper openings (3) communicated communicating with said sample separation chamber[[s]] at an upper part of each rotor, in the upper parts and [[the]] a lower openings passing through to (16) communicating with said sample separation chamber[[s,]] at a lower part of each rotor, said respective rotation symmetric axis being included inside said sample separation chamber;
a plurality of solution vessels (12, 150) each being fixed said sample separation chamber and having a concave portions (13, 160) for holding said sample solution[[s]] injected into said sample separation chamber via[[from]] said upper opening[[s,]];
multiplea plurality of rotation driving means (211, 502) assuming that said symmetric rotation axes are rotation axes each for rotating a respective one of said centrifugal rotors around said respective symmetric rotation axis;[[,]] and
[[a]]control means for driving said [[multiple]]rotation driving means, whereby said rotors are driven independently from each other.
38. (Currently Amended) A sample preparation device according to claim 37, wherein said control means control both injection of said sample solution[[s]] into said sample separation chamber[[s]] of each of said centrifugal rotors, and recovery of said sample[[s]] from each of said sample separation chamber[[s]] of each of said centrifugal rotors ~~for each of said centrifugal rotors.~~
39. (Currently Amended) A centrifugal preparation device according to claim 37, wherein each

of said centrifugal rotors ~~[[are]]~~is disposed ~~[[at]]~~on a transport devices ~~(40, 201)~~ moving ~~[[on]]~~along a loop trajectory ~~[[trajectories]]~~.

40. (Currently Amended) A sample preparation device according to claim 37, wherein each of said centrifugal rotors ~~[[are]]~~is disposed ~~[[at]]~~on a transport devices ~~(40, 201)~~ moving ~~[[on]]~~along a loop trajectory ~~trajectories and at given intervals, where said transport devices move, and each of~~ said centrifugal rotors ~~[[are]]~~is rotated for ~~[[centrifuging]]~~a given time interval to carry out centrifugal separation of said sample solution~~[[s]]~~ contained therein.
41. (Currently Amended) A sample preparation device according to claim 37, each of said centrifugal rotors ~~[[are]]~~is disposed ~~[[at]]~~on a transport devices ~~(40, 201)~~ moving ~~[[on]]~~along a circular trajectory ~~[[trajectories]]~~.
42. (Currently Amended) A sample preparation device according to claim 37, wherein each of said centrifugal rotors ~~[[are]]~~is disposed ~~[[at]]~~on a transport devices ~~(40, 201)~~ moving ~~[[on]]~~along a circular trajectory ~~trajectories and at given intervals, where said transport devices move, and each of~~ said centrifugal rotors ~~[[are]]~~is rotated for ~~[[centrifuging]]~~a given time interval to carry out centrifugal separation of said sample solution~~[[s]]~~ contained therein.
43. (Currently Amended) A sample preparation method for preparing at least one sample with a plurality of multiple centrifugal rotors ~~(210, 501)~~ with symmetric rotation axes for the rotations, each having a single sample separation chambers ~~(2, 15, 70)~~ in them therein for centrifuging a sample~~[[s]]~~ contained in ~~[[the]]~~ a sample solution~~[[s]]~~, an upper openings passing through to communicating with said sample separation chamber~~[[s]]~~, each of said rotors having a respective symmetric rotation axis included inside said sample separation chamber, said method comprising: ~~[[;]]~~
- (1) ~~a process for~~ injecting said sample solution~~[[s]]~~ into said sample separation chamber~~[[s]]~~ of each of said centrifugal rotors~~[[,]]~~;
 - (2) ~~a process for~~ moving each of said centrifugal rotors ~~[[on]]~~along a loop-shape trajectory~~[[,]]~~;
 - (3) ~~a process for~~ centrifuging said sample solutions, ~~assuming that said symmetric~~

~~rotation axes are the rotation axes, by rotating said centrifugal rotors independently around each of said respective symmetric rotation axis; [[axes,]] and~~

~~(4) a process for recovering said sample[[s]] obtained by centrifugation from each of said sample separation chambers of said centrifugal rotors.~~

44. (Currently Amended) ~~A sample preparation method for preparing at least one sample with a plurality of multiple centrifugal rotors (210, 501) with symmetric rotation axes for the rotations, each having a single sample separation chambers (2, 15, 70) in them therein for centrifuging a sample[[s]] contained in [[the]] a sample solution[[s]], an upper openings passing through to communicating with said sample separation chamber[[s]], each of said rotors having a respective symmetric rotation axis included inside said sample separation chamber, said method comprising: [[:]]~~

~~(1) a process for injecting said sample solution[[s]] into said sample separation chamber[[s]] of each of said centrifugal rotors[[,]]:~~

~~(2) a process for moving each of said centrifugal rotors [[on]] along a loop-shape trajectory[[,]]:~~

~~(3) a process for centrifuging said sample solution[[s]] to produce [[said]] a precipitate[[s]] of said sample assuming that said symmetric rotation axes are the rotation axes, by independently rotating each of said centrifugal rotors around said respective symmetric rotation axis; axes, independently~~

~~(4) a process for discharging [[the]] a supernatant liquid obtained by centrifugation [[from]] of said sample solution in said sample separation chamber of each of said centrifugal rotors[[,]]:~~

~~(5) a process for cleaning away said residual precipitate[[s]] deposited in said sample separation chamber of each of said centrifugal rotors[[,]]:~~

~~(6) a process for injecting a solvent[[s]] into at least one of said sample separation chambers of said centrifugal rotors, rotating independently said centrifugal rotors, and thereby dissolving said precipitate[[s into]] in said solvent; dissolving said precipitate in said solvent, and~~

~~(7) a process for recovering said the solvent containing said dissolved precipitates precipitate dissolved in said solvent from each of said sample separation chambers of said centrifugal rotors into [[the]] at least one recovery vessel[[s]].~~

45. (Currently Amended) A ~~sample preparation method for preparing at least one sample with a plurality of multiple centrifugal rotors (210, 501) with symmetric rotation axes for the rotations, each having a single sample separation chambers (2, 15, 70) in them therein~~ method for preparing at least one sample with a plurality of multiple centrifugal rotors (210, 501) with symmetric rotation axes for the rotations, each having a single sample separation chambers (2, 15, 70) in them therein for centrifuging a sample[[s]] contained in [[the]] a sample solution[[s]], ~~an upper openings passing through to communicating with~~ an upper openings communicating with said sample separation chamber[[s]] at an upper part of a respective centrifugal rotor, and ~~[[the]] a lower openings passing through to communicating with~~ [[the]] a lower openings communicating with said sample separation chamber[[s]] at a lower part of a respective centrifugal rotor, each of said rotors having a respective symmetric rotation axis included inside said sample separation chamber, said method comprising:[[:]]

(1) ~~a process for injecting said sample solution[[s]] into at least one of solution holding vessels (12, 150) fixed in said sample separation chambers of said centrifugal rotors, each having a concave portions (13, 160) in said sample separation chambers of said centrifugal rotors;~~

(2) ~~a process for moving each of said centrifugal rotors [[on]] along [[the]] a loop-shape trajectory;[[,]]~~

(3) ~~a process for centrifuging said sample solutions, assuming that said symmetric rotation axes, by rotating each of said centrifugal rotors independently [[,]] around said respective rotation symmetric [[axes,]] axis;~~ and

(4) ~~a process for recovering said sample[[s]] obtained by centrifugation from each of said sample separation chambers of said centrifugal rotors.~~

46. (Currently Amended) A ~~sample preparation method for preparing at least one sample with a plurality of multiple centrifugal rotors (210, 501) with symmetric rotation axes for the rotations, each having a single sample separation chambers (2, 15, 70) in them therein~~ method for preparing at least one sample with a plurality of multiple centrifugal rotors (210, 501) with symmetric rotation axes for the rotations, each having a single sample separation chambers (2, 15, 70) in them therein for centrifuging a sample[[s]] contained in [[the]] a sample solution[[s]], ~~an upper openings passing through to communicating with~~ an upper openings communicating with said sample separation chamber[[s]] at a lower part of a respective centrifugal rotor, each of said rotors having a respective symmetric rotation axis included inside said sample separation chamber, said method comprising:[[:]]

(1) ~~a process for injecting said sample solution[[s]] into at least one of solution holding vessels (12, 150) fixed in said sample separation chambers of said centrifugal rotors, each having a concave portions (13, 160) in said sample separation chambers of said~~

centrifugal rotors;

~~(2) a process for moving each of said centrifugal rotors [[on]] along a loop-shape trajectory[[,]];—~~

~~(3) a process for centrifuging said sample solution[[s]] to produce [[said]] a precipitate[[s]] of said sample assuming that said symmetric rotation axes are the rotation axes, by independently rotating each of said centrifugal rotors around said respective symmetric rotation axis; axes, independently~~

~~(4) a process for discharging [[the]] a supernatant liquid obtained by centrifugation [[from]] of said sample solution in said sample separation chamber of each of said centrifugal rotors;[[,]]~~

~~(5) a process for cleaning away said residual precipitate[[s]] deposited in said sample separation chamber of each of said centrifugal rotors;[[,]]~~

~~(6) a process for injecting a solvent[[s]] into at least one of said sample separation chambers of said centrifugal rotors, rotating independently said centrifugal rotors, and thereby dissolving said precipitate[[s into]] in said solvent; dissolving said precipitate in said solvent, and~~

~~(7) a process for recovering said the solvent containing said dissolved precipitates precipitate dissolved in said solvent from each of said sample separation chambers of said centrifugal rotors into [[the]] at least one recovery vessel[[s]].~~

47. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal rotor comprising:

~~a single sample separation chambers in them(2, 15, 70) disposed therein for centrifuging [[the]] a sample[[s]] contained in[[the]] a sample solution[[s,]] and having an [[the]] upper openings passing through to(3) communicated with said sample separation chamber[[s]], and a symmetric rotation axis included inside said sample separation chamber,~~

~~wherein assuming that the a direction of said symmetric rotation axis is the defines a first direction, and two directions intersecting each of a second direction and a third direction intersects with said first direction at a right angle are the second direction and the third direction, respectively, the length a dimension of said sample separation chamber in said third direction is larger than the length a dimension of said sample separation chamber in said second direction.~~

48. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal rotor comprising:

a single sample separation chambers in them (2, 15, 70) disposed therein for centrifuging ~~[[the]]~~ a sample[[s]] contained in ~~[[the]]~~ a sample solution[[s]], and having an ~~[[the]]~~ upper openings passing through to (3) communicated with said sample separation chamber[[s]], and a symmetric rotation axis included inside said sample separation chamber,

wherein provided that a direction normal to said axis Z and along which, in which the distance between the ends of said sample chamber [[is]] has the largest dimension thereof in the direction normal to said axis Z is the largest is defines an axis Y, and a direction intersecting with said axis Z and axis Y axis at right angles defines an ~~[[is]]~~ axis X, with respect to a cross sectional ~~[[areas]]~~ area of said sample separation chamber in a plane parallel to on a ZX plane is bigger than a parallel ~~[[, said]]~~ cross sectional area of said sample separation chamber ~~[[far]]~~ away from said ZX plane axis Z is smaller than said cross sectional area at a distance near axis Z.

49. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal rotor comprising:

a single sample separation chambers (15, 70) in them, disposed therein for centrifuging a sample[[s]] contained in a sample solution[[s]], ~~[[the]]~~ an upper openings (3) passing through to communicating with said sample separation chambers ~~in the at an~~ upper part[[s]] of the centrifugal rotor and ~~[[the]]~~ a lower openings (16) passing through to communicating with said sample separation chamber[[s]], said symmetric rotation axis of said rotor included inside said separation chamber; and

a solution holding vessels (12, 150), fixed in said sample separation chamber[[s]], and having a concave portions (13, 160) for holding said sample solution[[s]] injected into said sample separation chamber via ~~[[from]]~~ said upper opening[[s]].

50. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal rotor comprising:

a single sample separation chambers (15, 70) in them, disposed therein for centrifuging a sample[[s]] contained in a sample solution[[s]], ~~[[the]]~~ an upper openings (3)

~~passing through to communicating with~~ said sample separation chambers ~~in the~~ at an upper part ~~of the centrifugal rotor and~~ ~~the~~ a lower openings ~~(16) passing through to communicating with~~ said sample separation chamber ~~[[s]],~~ said symmetric rotation axis of said rotor is defined as an Z axis and included inside said separation chamber; and

a solution holding vessels ~~(12, 150),~~ fixed in said sample separation chamber ~~[[s]],~~ and having a concave portions ~~(13, 160)~~ for holding said sample solution ~~[[s]]~~ injected into said sample separation chamber via ~~[[from]]~~ said upper opening ~~[[s]],~~

~~wherein assuming that the~~ a direction normal to said axis Z and along which, ~~in which the distance between the ends of said sample chamber~~ ~~[[is]]~~ has the largest dimension thereof in the direction normal to said axis Z is the largest is defines an axis Y, and ~~the~~ a direction intersecting with said axis Z and said axis Y at right angles defines an ~~[[is]]~~ axis X, ~~respectively,~~ the longitudinal direction of said sample separation vessel ~~corresponds to~~ coincides with axis Y.

51. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal rotor comprising:

a single sample separation chambers ~~(15, 70) in them,~~ disposed therein for centrifuging a sample ~~[[s]]~~ contained in a sample solution ~~[[s]],~~ ~~the~~ an upper openings ~~(3) passing through to communicating with~~ said sample separation chambers ~~in the~~ at an upper part ~~of the centrifugal rotor and~~ ~~the~~ a lower openings ~~(16) passing through to communicating with~~ said sample separation chamber ~~[[s]],~~ said symmetric rotation axis of said rotor is defined as an first direction and included inside said separation chamber; and

a solution holding vessels ~~(12, 150),~~ fixed in said sample separation chamber ~~[[s]],~~ and having a concave portions ~~(13, 160)~~ for holding said sample solution ~~[[s]]~~ injected into said sample separation chamber via ~~[[from]]~~ said upper opening ~~[[s]],~~

~~wherein assuming that two directions that~~ each of a second direction and a third direction intersects with the first direction at a right angle ~~are the second direction (X) and the third direction (Y),~~ respectively, a length dimension in the third direction of the sample separation chamber is larger than ~~[[that]]~~ a dimension of said sample separation chamber in the second direction.

52. (Currently Amended) ~~Centrifugal rotors with symmetric rotation axes having~~ A centrifugal

rotor comprising:

a single sample separation chamber, disposed therein, for a single sample separation chambers (15, 70) in them, disposed therein for centrifuging a sample[[s]] contained in a sample solution[[s]], [[the]]an upper openings (3) passing through to communicating with said sample separation chambers in the at an upper part[[s]] of the centrifugal rotor and [[the]]a lower openings (16) passing through to communicating with said sample separation chamber[[s]], said symmetric rotation axis of said rotor is defined as an Z axis and included inside said separation chamber; and

a solution holding vessels (12, 150), fixed in said sample separation chamber[[s]], and having a concave portions (13, 160) for holding said sample solution[[s]] injected into said sample separation chamber via [[from]] said upper opening[[s]],

wherein both of the upper and lower openings communicate with the sample separation chamber,

wherein provided that a direction normal to said axis Z and along which a distance between the ends of said sample separation chamber has in a direction normal to axis Z is the largest dimension thereof defines an [[is]] axis Y, and a direction intersecting axis Z and axis Y at right angles defines an [[is]] axis X, with respect to a cross sectional [[areas]] area of said sample separation chamber in a plane parallel to on a ZX plane is bigger than a parallel [[, said]] cross sectional area of said sample separation chamber [[far]] away from said ZX plane axis Z is smaller than said cross sectional area at a distance near axis Z.